

Notice of Allowability

Application No.

10/783,480

Examiner

Tuan N. Nguyen

Applicant(s)

JIANG ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/19/2004.
2. ☒ The allowed claim(s) is/are 1-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 02/19/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

REASON FOR ALLOWANCE

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance, with respect to claims 1, 15, 20 the references of the record fail to teach or suggest a fiber laser comprising:

Claim 1:

A gain fiber less than 5cm having pump source having a narrowband with a linewidth less than 100kHz and broadband grating as an optical resonant cavity at the opposite ends of the fiber producing a mode spacing comparable with the narrowband grating's linewidth and lase at a single longitudinal mode and output a single frequency between 1.8um-2.1um, where the cladding made up same as the core glass host, where the core made up of germinate/tellurite/ or fluoride having 0.5-15 weight percent of thulium/or holmium oxide.

Claim 15:

A gain fiber less than 5cm having pump source outputs a single-frequency signal with center wavelength approximately 2um, having the cladding made up fluoride/germante/or tellurite glass host, where a single mode core made glass host having 0.5-15 weight percent of thulium/or holmium oxide, where a narrowband grating fused at one end of the gain passive fiber and a broadband grating fused at the other end of the passive gain fiber.

Claim 20:

A gain fiber less than 5cm having pump source lase the dopant oxide ions fiber at a single longitudinal and outputs a single-frequency signal with center wavelength approximately 2um,

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having a core formed of an oxide-based multi-component glass host 30-85% from GeO_2 /or TeO_2 , having a glass intermediary L_2O_3 of 0.5-50% from Al_2O_3 , B_2O_3 , Y_2O_3 , La_2O_3 , WO_3 and mixture thereof, having a glass modifier of 2-50% including MO of 0-20% from BaO, BeO, MgO, SrO, CaO, ZnO, PbO, K₂O, Li₂O, and R₂O of 0-20% from Na₂O, Li₂O and K₂O and mixture thereof, where glass host having 0.5-15 weight percent of thulium/or holmium oxide.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F.

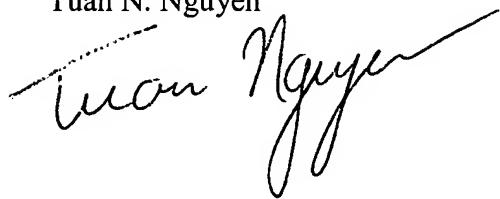
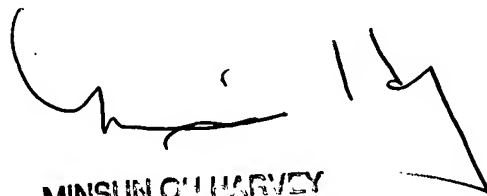
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan N. Nguyen

A handwritten signature in black ink, appearing to read "Tuan Nguyen", with a long, sweeping horizontal stroke extending to the right.A handwritten signature in black ink, appearing to read "Minsun Oh", with a large, stylized "M" and a long horizontal stroke.

MINSUN OH HARVEY
PRIMARY EXAMINER